NCCMERP

National Coordinating Council for
Medication Error Reporting and Prevention

Two Decades of Coordinating Medication Safety Efforts

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National Coordinating Council for Medication Error Reporting and Prevention: *Two Decades of Coordinating Medication Safety Efforts*

History of the National Coordinating Council for Medication Error Reporting and Prevention

In the mid-1990s, the United States Pharmacopeia (USP) spearheaded an effort to convene a group of concerned national organizations that had the authority, mechanisms, and resources to confront the complexities of medication errors and develop solutions for those issues that adversely affected patient safety. Through its decades as a drug standards-setting organization and its experience with the nationwide USP- the Institute for Safe Medication Practices (ISMP) Medication Errors Reporting (MER) Program, the USP recognized that there were many causes for medication errors and no one organization was equipped to address this threat to patient safety.

Therefore, USP convened fifteen interdisciplinary organizations and agencies which met on July 19, 1995, for the first meeting of the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP/ The Council). The Council was formed to actively promote the reporting, understanding, and prevention of medication errors through the coordinated efforts of its member associations and agencies, and to focus on ways to enhance patient safety through a coordinated approach utilizing a systems-based perspective.

Founding Council member organizations were the American Association of Retired Persons (now known as AARP), the American Health Care Association (AHCA), the American Hospital Association (AHA), the American Medical Association (AMA), the American Nurses Association (ANA), the American Pharmaceutical Association, now known as the American Pharmacists Association (APhA), the American Society of Health-System Pharmacists (ASHP), the Federation of State Medical Boards of the United States (FSMB), the Food and Drug Administration (FDA), the Generic Pharmaceutical Industry Association, now known as the Generic Pharmaceutical Association (GPhA), the Joint Commission on the Accreditation of Health Care

Organizations JCAHO), now known as The Joint Commission, the National Council of State Boards of Nursing (NCSBN), the National Association of Boards of Pharmacy (NABP), the Pharmaceutical Research and Manufacturers of America (PhRMA), and the United States Pharmacopoeia (USP).

William Ellis, RPh, then Executive Director of the Pennsylvania Society of Health System Pharmacists, was selected by the USP to be the chairperson to lead the Council through its first year. He was then elected by the Council membership to serve another one-year term as chairperson. The USP agreed to serve as the Secretariat for the Council.

At its first meeting the Council declared its purpose to be the mounting of a nationwide campaign for medication error reporting and prevention that would promote recommendations broadly to colleges, schools, and state associations of medicine, pharmacy, and nursing; national professional associations; managed care organizations; and third-party payers. Five goals were delineated, that continue to provide direction to Council activities to this day (see Table 1).

At its second meeting, the Council approved a definition of "medication error" and encouraged all stakeholders to use this definition to provide a uniform basis for medication error reporting and analysis. Standardized classification criteria (Taxonomy) and a severity grading system (Error Category Index) for medication errors were then developed by the Council, and health professionals and healthcare organizations were urged to report medication errors to national programs like the (then) USP-ISMP Medication Errors Reporting (MER) Program and FDA's MedWatch.

Definition of "Medication Error"

As one of its initial actions, the Council defined a "medication error" as follows:

> ***"A medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the healthcare professional, patient, or consumer. Such events may be related to professional practice, health***

care products, procedures, and systems, including prescribing; order communication; product labeling, packaging, and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use."

The Council has urged all stakeholders to adopt this definition of a medication error to promote uniformity in the discussion of medication errors across the healthcare continuum. Among those adopting the NCC MERP definition are the FDA, Centers for Medicare and Medicaid Services (CMS), and the USP.

Index for Categorizing Medication Errors

Following closely on the promulgation of the definition of "medication error," the Council moved on to develop the ***Index for Categorizing Medication Errors.*** The Council originally adopted the Index to classify an error according to the severity of the outcome. The Index was designed to help health care practitioners and institutions track medication errors in a consistent, systematic manner. The Index considers factors such as whether the error reached the patient and, if the patient was harmed, to what degree. The Council encouraged the use of the Index in all health care delivery settings and by researchers and vendors of medication error tracking software.

In 2001 a revised and expanded Index was developed by the Council to make it easier for health care professionals to categorize and report medication errors (see Figure 1). The Council created a new circular configuration for its Index, which attributes an equal area to each of the nine medication error categories. Originally, the Index had listed the categories in descending order. Medication error definitions within each category also were expanded. Although the nine Index categories remain the same (designated as Categories A through I), the definitions within each category were clarified so that practitioners can more easily apply the Index to individual reports of medication errors. The revised Index expanded the definition of the harmful categories (E through I) so that the error "may have contributed to or resulted in" harm.

Another Index refinement included additional language for serious errors that result in an intervention necessary to sustain life. The definition of harm also was broadened to

include pain. This was consistent with a movement within health care to routinely monitor a patient's pain as the "fifth" vital sign.

Index for Categorizing Medication Errors Algorithm

The Council also created the ***NCC MERP Index for Categorizing Medication Errors Algorithm*** that incorporated a series of "yes-no" questions to guide health care professionals in their determination of the appropriate medication error category for the error they are reporting or evaluating (see Figure 2). The Council periodically reviews the Index and considers the need for refinement to assure continuing currency and ongoing relevance.

Taxonomy of Medication Errors

From 1996 to 1999, the Council developed an extensive ***"Taxonomy of Medication Errors."*** Released in March 1999, this important tool provided a detailed structure and standardized language to report medication error-related data for use in developing databases to analyze medication error reports.

The Taxonomy's comprehensiveness reflects the complexity and system realities associated with medication errors. It consists of eight major categories: patient information, medication error event, patient outcome, product information, personnel involved, type of medication error, causes, and contributing factors.

Each category contains multiple fields and data choices. The Taxonomy, itself, is not intended to be a reporting system or form, but rather is a tool to categorize and analyze reports of medication errors for healthcare organizations with established reporting systems and forms. It can be used to analyze medication error reports and abstract data elements. The Taxonomy also can be used to design local or national medication error reporting forms and accompanying databases. A brief user's questionnaire is included with the Taxonomy to aid in identifying the need for future revisions.

The Council considers requests for use of the Taxonomy by external individuals and organizations. It is the intention of the Council that the Taxonomy be used widely. In that regard, the full, unaltered text of the Taxonomy may be reproduced without special permission by individual healthcare facilities for internal, non-commercial use.

However, all other requests to use the Taxonomy must be approved by the Council. While the Council prefers that the Taxonomy be reproduced only in its entirety and without alteration, the Council realizes that, in some instances, an entity may have a valid reason to use only selected components of the Taxonomy. The Council has developed *Principles for Partial Use of the Taxonomy*, and evaluates and approves requests for partial use of the Taxonomy against those principles.

The Taxonomy has been widely used by healthcare organizations, including hospitals that participate in the MedMarx® medication error reporting program. The NCCMERP taxonomy remains the only stable taxonomy which institutions such as the Department of Defense (DoD) and others are using as the foundational taxonomy for quantifying severity of various types of errors. The wide spread use of this taxonomy further validates the work of the Council and its reach. The Taxonomy also has been included in textbooks and numerous articles in scientific journals. It has formed the basis for development of assessment tools (both paper-and-pencil and electronic). Software vendors have included the Taxonomy in their products. The inclusion of the Taxonomy in healthcare organizational policy and procedures has served to improve patient safety and increase quality within healthcare settings.

Adverse Drug Events Algorithm

The Council has frequently been asked to help healthcare professionals distinguish among Adverse Drug Events (ADEs), Adverse Drug Reactions (ADRs) and Medication Errors. The Council notes several definitions for these terms in the literature, research reports, and by various organizations. The terms ADE and ADR have been used when patient harm has occurred as a result of a drug. To further clarify, an ADR has been defined as harm that results from a medication dose that is "normally used in man." An ADE has been defined as harm associated with any dose of a drug, whether the dose is "normally used in man" or not. An ADR, therefore, is a subtype of an ADE (i.e., all ADRs are ADEs, but not vice versa). By definition, all ADEs are associated with patient harm, but not all ADEs are caused by an error. Significant confusion exists regarding these terms.

In 2015, the Council proposed that the term ADE be subcategorized to preventable and non-preventable, and to discontinue the use of ADR. The Council proposed new

terminology to detail the relationships between the terms ADE and ADR and encouraged their consistent adoption across the medication safety community:

- "Preventable ADE" is harm caused by the use of a drug as a result of an error (e.g., patient given a normal dose of drug but the drug was contraindicated in this patient). These events warrant examination by the provider to determine why it happened.
- "Non-Preventable ADE" is drug-induced harm occurring with appropriate use of medication (e.g., anaphylaxis from penicillin in a patient and the patient had no previous history of an allergic reaction). While these are currently non-preventable, future studies may reveal ways in which they can be prevented.

Standardized use of this terminology will focus attention on efforts aimed at eliminating preventable harm. The algorithm (see Figure 3) distinguishes between "Preventable ADEs" and "Non-Preventable ADEs."

NCC MERP Recommendations/Statements

The Council's mission is to maximize the safe use of medications and to increase awareness of medication errors through open communication, increased reporting and promotion of medication error prevention strategies. To address its goals (see Table 1), the Council analyzed data from two reporting programs (USP-ISMP Medication Errors Reporting (MER) Program and MedMarx®) and identified areas in the medication use process that resulted in actual and potential medication errors. To help reduce such errors, the Council has periodically issued recommendations and statements (see Table 2) that span the medication use process.

Recommendations for Prescribing

In 1996, the Council drafted its first set of recommendations to help reduce the potential for harmful errors in medication ordering and prescribing. "Recommendations to Correct Error-prone Aspects of Prescription Writing" were an important step in ensuring the five basic patient rights: the right drug in the right dose by the right route to the right patient at the right time. Recurring problems that led to the issuance of these recommendations included illegible handwriting on prescriptions and medication orders, the absence/presence of leading/trailing zeros, misinterpreted abbreviations, confusing Latin directions for use, and vague or incomplete instructions. These

recommendations were intended for inclusion in developing educational and orientation programs for health care staff and to promote the use of computerized order entry systems.

Recommendations for Labeling and Packaging

In an attempt to reduce medication errors in which product labeling and packaging were contributing factors, in 1997 the Council adopted two sets of recommendations, one for regulators and standards- setters and one for manufacturers of pharmaceuticals and devices. Suggested actions included restricting the use of any printing on caps and ferrules of injectables except to convey warnings; the use of innovative labeling, such as enhanced (i.e., Tall Man) lettering, to distinguish similar drug names; implementation of bar coding; the use of failure mode and effects analysis for the design of devices, and for the packaging and labeling of medications; and the continued partnership among members of the entire medication use spectrum to minimize labeling and packaging errors. Emphasis was placed on finding systems-based solutions to reduce errors, and on increasing awareness of product packaging and labeling that is associated with actual or potential errors.

In March 1998, additional recommendations on labeling and packaging were directed at health care professionals and health care organizations. When implemented, these recommendations would reduce those errors in which product labeling and packaging design had been identified as contributing factors to medication errors. The Council advocated for proper storage and location of medications within a healthcare facility; clear procedures for medication repackaging; education and training of healthcare professionals, technical support personnel, patients and caregivers for reducing and preventing medication errors; and for active participation and collaboration in reporting and investigating errors. The establishment of a systems approach to understanding and reporting medication errors was endorsed, along with the establishment of a culture conducive to rectifying processes that contribute to errors.

Recommendations for Dispensing

Patient harm is more likely to occur when there are no mechanisms in place to prevent medication errors from reaching patients. For example, poor environmental conditions, distractions, and excessive workload all act to undermine safe medication use practices.

The Council believed that one of its roles was to make recommendations that were easily adoptable by all health care professionals to protect patients. Thus, in March 1999, the Council adopted recommendations aimed at preventing errors that occur during the dispensing phase of the medication use process. Emphasis was placed on checking and rechecking labels, arranging product inventory to visually differentiate medications, designing dispensing areas that are conducive to uninterrupted work, and encouraging pharmacists to take an active role in counseling patients.

Recommendations for Administration

The Council also wanted to ensure that health care professionals who administer medications are knowledgeable about the drugs they administer and have easily-accessible product information. In June 1999, the Council adopted recommendations to reduce errors related to the administration of drugs in all areas of health care delivery, once again focusing on the five patient rights. Labels were to be checked three times and patients were to be continuously monitored for desired or adverse effects. The use of linked automated systems (i.e., direct order entry, computerized medication administration records, and bar coding) was encouraged to facilitate review of prescriptions, increase the accuracy of administration, and reduce transcription errors. The Council also recommended that data from actual or potential administration errors be continuously collected for quality improvement.

Recommendations for Verbal Orders

In 2001, the Council developed recommendations to reduce medication errors associated with verbal medication orders and prescriptions. Errors resulting from verbal orders are an area of particular concern because confusion over similar drug names or other aspects of the medication order are common. Developing organizational policies and procedures regarding verbal orders, limiting verbal orders to emergency situations, immediately converting the order to writing, requiring the person accepting the verbal order to then read the order back to the prescriber to assure that the verbal communication was accurate, and fostering a culture where staff is encouraged to question prescribers about unclear verbal orders, were among the recommendations made.

Recommendations for Standard Bar Codes on Medication Packages and Containers

Recommendations to standardize bar codes on medication packages and containers were adopted by the Council in June 2001, following an invitational conference sponsored by the Council (see below for full description of this activity). The recommendations describe the minimum requirements for the data elements of a bar code, the format and labeling parameters, and indicated that the bar code should be included on immediate container labels of all commercially available medications regardless of dosage form, the intermediate container or carton, and on the shelf-keeping unit.

Statement for the Value of Using Medication Error Rates to Compare Health Care Organizations

In 2002, the Council issued a statement on medication error rates. The Council believes that there is no acceptable incidence rate for medication errors, and that the goal of every organization should be to continually improve systems to prevent harm to patients. On the other hand, the use of medication error rates to compare healthcare organizations is of no value because of differences among healthcare organizations in culture, the definition of a medication error, patient populations served, and the type(s) of reporting and detection systems used. Health care organizations should continuously monitor actual and potential errors and investigate the root causes of errors to identify ways of improving the medication use process to prevent future errors and patient harm. According to the Council, creating an open environment that encourages error reporting is more important than developing comparative error rates.

Recommendations to Reduce Medication Errors in Non-Health Care Settings

In 2003, the Council issued recommendations to reduce medication errors in non-health care settings, such as schools, day care, assisted living, and prisons. In all of these settings, employees, many of whom are not licensed health care professionals, may lack adequate training in medication storage and/or administration, yet they are responsible for handling and administering prescription and over-the-counter medications. The Council recommended that non-health care settings have written policies and

procedures on medication management, provide training to all personnel with responsibilities for medication management, provide safeguards to prevent and detect theft and diversion of controlled substances, and encourage the reporting of medication errors to appropriate state and national medication error reporting programs to identify significant trends that can lead to improved quality and safety of healthcare.

Promoting the Safe Use of Suffixes in Prescription Drug Names

The Council noted in 2007, numerous medication errors associated with the use of suffixes in drug names have been reported through various reporting programs including the Food and Drug Administration's (FDA) MedWatch Reporting Program, the United States Pharmacopeia-Institute for Safe Medication Practices' (USP-ISMP) Medication Errors Reporting Program, and the MedMarx® Reporting Program which in 2008 USP licensed to Quantros. Addressing this issue requires a balance between preserving the benefits associated with the use of suffixes (e.g., differentiation of product strength, identification of therapy duration and dosing interval, identification of product characteristics, etc.), while minimizing errors associated with confusion, knowledge deficit, and lack of standardized meanings. As a result, recommendations were developed by the Council to promote the safe use of drug-name suffixes.

Recommendations for Avoiding Medication Errors with Drug Samples

Drug samples of medications are available to patients through healthcare sites such as practitioners' offices, clinics, hospital emergency departments, and pharmacies. Drug samples provide a vital service to patients whose pharmacotherapeutic regimen is not well established, are poor, uninsured, underinsured, or in need of medications when pharmacies are closed. However, systems for distributing samples are often inadequate or unsafe for patients due to insufficient control, poor documentation, improper storage, inadequate instruction for use, lack of written instruction, poor labeling or packaging, and the dispensing of expired medications. The Council, in 2008, issued recommendations to highlight the risk of medication errors with the use of drug samples and to provide guidance for a standardized approach to distribution of drug samples in all practice settings.

Statement Opposing the Criminalization of Errors in Healthcare

The Council, in 2011 opposed the criminalization of errors in healthcare acknowledging

that human error is inadvertent and unintentional. Criminalizing human error is a deterrent to error reporting, learning from errors, and error prevention. As a result, unsafe systems may be perpetuated rather than improved. The Council believes that events that cause or may cause patient harm should be reported promptly and investigated thoroughly using established techniques to identify all possible causes and contributory factors. However, criminal acts and patient harm related to competency and/or licensure issues are not addressed in this statement as they are beyond the Council's purview.

Reducing Medication Errors Associated with At-risk Behaviors by Healthcare Professionals

It is human nature to look for quicker and easier ways to accomplish tasks, but these actions may lead to, or be a result of, at-risk behaviors. At-risk behaviors are actions taken by some healthcare practitioners that could compromise patient safety. Those who engage in at-risk behaviors may do so because the rewards are immediate and the risk of patient harm seems remote, making it difficult to motivate people to always choose the safest way to work. As healthcare practitioners become comfortable and competent with the tasks at hand, they may have a tendency to engage in at-risk behaviors. These behaviors often result in convenience, comfort, and saved time. The perceived benefits of taking shortcuts rapidly leads to continued at-risk behaviors, despite practitioner's possible knowledge, on some level, that patient safety could be at risk. In addition, as one practitioner has apparent success with an at-risk behavior, s/he will likely influence fellow practitioners until that behavior becomes a standard practice. These behaviors often emerge because of system-based problems and complexities in healthcare organizations. As a result, in 2013, the Council adopted recommendations to reduce medication errors associated with at-risk behaviors.

Statement Advocating for the Elimination of Prescription Time Guarantees in Community Pharmacy

Also in 2013, the Council advocated the elimination of prescription time guarantees and a strengthened focus on the clinical and safety activities of pharmacists within the community pharmacy setting. The Council acknowledges that many issues, including patient satisfaction and the current reimbursement model under which a pharmacist is only paid for a dispensed drug product or device, encourage a focus on prescription

volume and the speed at which a community pharmacy dispenses prescriptions. However, this can have detrimental effects on patient education and patient safety. Pharmacists may feel compelled to bypass critical safety checks or offer insufficient counseling in order to meet prescription volume quotas or time promises.

NCC MERP National Conferences

A key strength of the Council is to convene interested stakeholders on important issues that can be controversial. Two issues presented such opportunities for the Council's action: the use of bar codes on medication packages and containers; and the use of suffixes in drug nomenclature.

Standardization of Bar Codes

The use of machine-readable codes, such as bar codes, in a standardized format on all medication packages and containers was considered a promising technology to reduce medication errors and improve patient safety. In August 2000, the Council hosted a national conference to explore four specific areas relating to bar code technology: needs assessment, current standards, equipment manufacturers, and cost implications. Recommendations resulting from this conference called upon the USP and the FDA to collaborate with appropriate stakeholders to establish and implement uniform bar code standards at the unit-of-use package level. The recommendations, which were adopted by the Council in June 2001, described the minimum requirements for the data elements of a bar code, the format and labeling parameters, and indicated that the bar code should be included on immediate container labels of all commercially available medications regardless of dosage form, the intermediate container or carton, and on the shelf-keeping unit. Members of the pharmaceutical industry hailed the recommendations for providing a standard mechanism to efficiently implement bar coding onto pharmaceutical labels and advancing its commitment to the safe use of pharmaceutical products. Subsequently, the FDA proposed and then issued final rules on bar coding.

Drug Nomenclature and Suffix Use

The Council convened a group of interested stakeholders in October 2005, to review issues associated with drug nomenclature that includes suffixes. Currently, it is common practice to name a modified dosage formulation within a product line adding

a suffix. Suffixes have also been used to describe unique characteristics of drug products such as "orally disintegrating" tablets. A suffix may be a letter, number or combination of letters and/or numbers attached to the end of a proprietary drug name. As an unintended consequence, the practice of adding suffixes to drug names has contributed to confusion among drug products and an increase in related medication errors. Also, there are currently no uniform standards or consistent definitions to guide what these suffixes mean or how they are used. The conference was held to: describe the wide array of issues associated with the use of non-standardized drug name suffixes from various stakeholder perspectives; quantify, to the extent possible, the underlying causes of medication errors arising from non-standardized use of drug name suffixes; and describe short and long-term solutions that will be encompassed in NCC MERP recommendations to reduce medication errors related to the disparate use of drug name suffixes.

Ongoing NCC MERP Activities

The goals (see Table 1) delineated at the group's first meeting continue to direct the activities of the National Coordinating Council for Medication Error Reporting and Prevention as it continues to focus on key issues impacting the safe use of medications. The Council has modified its structure to better support the accomplishment of multiple activities and implemented a strategic plan that will provide a roadmap for its work. The strategic plan focuses on continuing to expand The Council's presence and role in the evolving patient safety environment, both nationally and internationally. As such, emphasis has been placed on identifying increased opportunities for publications and presentations, ongoing generation of relevant and timely work products designed to help reduce/prevent medication errors and increase/improve error reporting, greater presence and participation in various national patient safety activities, and increased communication (See Selected Recent Citations). Future direction includes more focused attention on error-related issues in non-hospital settings, predictive risk modeling, comprehensive analysis of the medication error literature, initiation of a "campaign" for increased error reporting, development of a research agenda that targets critical error-reduction opportunities and enhanced error reporting incentives for further investigation, reliability and validity studies respecting the Index for Categorizing Medication Errors, expansion of Council membership, and the identification of collaborative opportunities.

Use of NCC MERP Products

The Council determines its success, in part, through inclusion of thousands of citations in the literature (published in the United States and internationally) as well as by the receipt of requests to utilize its work products. A sample of requests considered this cycle are listed below:

- Sutter Health was granted use of the index for medication errors.
- Sonya Koontz, APRN was allowed use of the taxonomy without change for a Duke University capstone project analyzing medication errors and near misses in associate degree nursing programs in IL
- Robert "Bob" Wachter, MD utilized the category index in *Disrupted: Hope, Hype, and Harm at the Dawn of Medicine's Digital Age*.
- Inclusion of a table format of the taxonomy in the chapter "Medical Failure Taxonomies" by Bruce R. Thomadsen, PhD in the *Handbook of Human Factors and Ergonomics in Patient Safety* edited by Pascale Carayon, PhD.
- The medication error category index with additional safeguarding actions has been incorporated into a protocol for West Sussex Adult Services Investigation Managers in the United Kingdom.
- The Medication Error Category Index is included in Joint Commission Resources' *Value of Close Calls in Improving Patient Safety* edited by Albert W. Wu, MD, MPH, of Johns Hopkins University.
- Red Deer College Pharmacy Technician Program linked to NCC MERP web site as a resource for students.
- Ascend Learning was granted permission to use the Category Index in publication Cancer Therapy: Prescribing and Administration Basics.
- University Medical Center Hamburg-Eppendorf Pharmacy linked to the category index and algorithm for use by approximately 500 hospital pharmacist in Germany.
- Adams, Michael, Holland Norman, Urban, Carol. (2013). *Pharmacology for Nurses*, 4th Edition, "Chapter 7: Medication Errors and Risk Reduction". Pearson Education, Inc.
- April D. Miller, PharmD, South Carolina College of Pharmacy, was granted permission to reprint the Category Index for continuing education through McGraw-Hill using *Goldfrank's Toxicologic Emergencies*.

- Avera McKennan Hospital and University Health Center, Denver, CO was given permission to use Category Index in study of the impact of implementing a bar-code medication administration system as an intervention to reduce medication errors.
- A University of Phoenix doctoral candidate was granted permission to use the Category Index in a study: *Mindfulness Thinking Training for Nurses* to minimize medical administration errors in a rural hospital.
- The Medication Error Definition was reprinted in the First Edition of the *Pharmacy Technician Exam Review Guide*.
- Wendy Gay, PharmD, Medication Safety Coordinator at TriStar, TN was given approval to modify the NCC MERP algorithm to facilitate electronic integration into the TriStar system with the stipulation that the statement "Adapted from NCC MERP original algorithm" with explanation of the differences be included.
- Loren Bonner, MA called attention to the ways in which "NCC MERP's new tool will assist in preventing medication-related harm" in APhA's *PharmacyToday*.
- Pearson Education Inc. received permission to reprint the Category Index in Edition No. 5 of *Pharmacology for Nurses: A Pathophysiological Approach* by Michael Adams, Norman Holland and Carol Urban with an anticipated publication date of January 20, 2016.

In addition, many countries including Canada, the United Kingdom, Australia, and others have incorporated the Taxonomy, the definition for medication error, and/or other components of the Council's work products into national reporting systems, patient safety best practices guidelines, and error reporting/analysis systems.

NCC MERP Recognition

In 2007, the Council was recognized with receipt of the American Pharmacists Association (APhA) Foundation Pinnacle Award in the Voluntary Health Agencies, Non-profit Organizations, Associations, Government Agencies, and Public/Private Partnerships category. The Award presentation noted a key strength of the Council is its ability to convene interested stakeholders on important issues. The Council, in part

because of the diversity and impact of its member organizations, has played a substantial role in changing the national and international culture on how medication errors are perceived and on how systems-based solutions are necessary to address this problem.

In 2008, the Council received The Joint Commission/National Quality Forum's (NQF) John M. Eisenberg Patient Safety and Quality Award in the category of Innovation in Patient Safety and Quality at the National Level. The award acknowledged the Council for a seminal body of work to promote medication error reporting and prevention.

In 2011, the Institute for Safe Medication Practices (ISMP) selected the Council as one of the recipients of the Cheers Award. ISMP honored NCC MERP with special recognition for years of work in medication safety.

Collaborative Efforts

Over the past two decades, the Council has grown to include twenty-five member organizations, a Federal liaison, one patient representative and two individual members (see Table 3). It has standardized definitions, issued thirteen sets of recommendations and three statements, and hosted two national conferences. In addition, in concert with 93 state and national health-related associations, the Council signed on to a set of general principles supporting legislation to uphold as privileged that information submitted to error reporting programs. These General Principles were incorporated into the *Patient Safety and Quality Improvement Act* which was passed by Congress and signed into law. The Council was instrumental in establishing the National Alert Network (NAN) which publishes alerts from the National Medication Errors Reporting Program. NAN encourages the sharing and reporting of medication errors, so that lessons learned can be used to increase the safety of the medication use system.

Membership Perspectives

Council members have noted NCC MERP's impact on their activities, as described below by member organizations. Links to members' websites are provided within Table 3.

United States Pharmacopeial Convention (USP) ~ Secretariat and Founding Member

The U.S. Pharmacopeial Convention (USP) is a scientific nonprofit organization that sets standards for the identity, strength, quality, and purity of medicines, food ingredients, and dietary supplements manufactured, distributed and consumed worldwide. USP's drug standards are enforceable in the United States by the Food and Drug Administration, and these standards are used in more than 140 countries. These standards have been helping to ensure good pharmaceutical care for people throughout the world for more than 195 years.

Through its work as a standards setting organization since 1820, the USP recognized the need for national attention to the problem of medication errors through its medication errors reporting program. In 1995, it organized leading healthcare and consumer organizations to address challenges regarding the safe use of medications through its creation of the NCCMERP. Since the Council's inception, USP has acted as its Secretariat in the Council's activities addressing continuing concerns related to medication use and bringing the healthcare community together in a unified effort. One of USP's ongoing contributions to the Council is its administration and maintenance of the NCCMERP website content and design. USP continues its efforts in developing practitioner standards that may be adopted by member organizations of the NCCMERP and others regarding prescription container labeling, nomenclature/drug naming, and patient safety labeling for drug, dietary supplement, excipients, and compounded preparation monographs. USP is dedicated to serving the public and preventing patient harm through establishing practice and quality standards for sterile and nonsterile compounding. USP sets standards for the Medicare Model Guidelines and facilitates discussion on drug shortages, personalized medicine, and electronic health records. USP looks to the Council to recognize standards for healthcare

practitioners and when standards are not appropriate to adopt recommendations for patient safety issues. USP commends the Council's continued commitment to its original goals of evaluating the causes of medication errors and promoting development of strategies, practice standards, and guidelines to reduce, and ultimately prevent medication errors.

AARP ~ Founding Member

AARP is a nonprofit, nonpartisan membership organization that helps people 50+ have independence, choice and control in ways that are beneficial and affordable to them and society as a whole. On average, persons age 45~64 fill over 21 prescriptions each year; those age 65 and older fill over 31 prescriptions each year. Thus, older adults may be most at risk for medication errors.

American Hospital Association (AMA) ~ Founding Member

The American Hospital Association (AHA) is the national organization that represents and serves all types of hospitals, health care networks, and their patients and communities. Nearly 5,000 hospitals, health care systems, networks, other providers of care and 43,000 individual members come together to form the AHA. Through its representation and advocacy activities, AHA ensures that members' perspectives and needs are heard and addressed in national health policy development, legislative and regulatory debates, and judicial matters. AHA's advocacy efforts include the legislative and executive branches and include the legislative and regulatory arenas. Founded in 1898, the AHA provides education for health care leaders and is a source of information on health care issues and trends.

American Medical Association (AMA) ~ Founding Member

The American Medical Association, the nation's largest physician professional association, helps doctors help patients by uniting physicians

to work on the most important professional and public health issues.

American Nurses Association (ANA) ~ Founding Member

The American Nurses Association (ANA) is the largest full-service professional nursing organization representing the interests of the nation's 3.4 million Registered Nurses through its constituent member and organizational affiliates.

American Pharmacists Association) (APhA) ~ Founding Member

Founded in 1852 as the American Pharmaceutical Association, the American Pharmacists Association represents more than 62,000 practicing pharmacists, pharmaceutical scientists, student pharmacists, pharmacy technicians, and others interested in advancing the profession.

APhA congratulates the National Coordinating Council on Medication Error Reporting and Prevention (NCC MERP) on its 20th anniversary and is pleased to be a founding member of the Council. APhA commends the Council's longstanding work to advance medication safety in the health care system including the recent release of the adverse drug event algorithm and its various statements and recommendations. APhA's initiatives have focused on publishing patient safety and medication error-related articles and research, and highlighting the significant contribution the Council has made in preventing and addressing medication errors. APhA looks forward to continued collaboration with NCC MERP in improving medication use and advancing patient care.

American Society of Health-System Pharmacists (ASHP) ~ Founding Member

ASHP represents pharmacists who serve as patient care providers in acute and ambulatory settings. The organization's more than 40,000 members include pharmacists, student pharmacists and pharmacy technicians. For over 70 years, ASHP has been on the forefront of efforts to improve

medication use and enhance patient safety.

As a founding member of NCC MERP, ASHP commends the Council for its sustained commitment to preventing medication errors over the past 20 years. The Council's recommendations and tools continue to be relevant and practical, as demonstrated by the ongoing number of requests for their use. Several of these, such as the definition of medication error and the Council's statements opposing the use of medication error rates and criminalization of errors in healthcare, addressed controversial topics with guidance that continues to inform medication error research.

ASHP frequently draws on the Council's work to complement our own. ASHP's official policies and guidance, such as the Guidelines on Preventing Errors with Antineoplastic Agents and Compounding Sterile Preparations, often list Council recommendations as references. The ASHP Board of Directors has voted to endorse several of the Council's recommendations and statements and reaffirms their relevance and value every five years.

ASHP also directs our members to NCC MERP guidance and encourages the use of NCC MERP tools. We look forward to working in collaboration with our partners on the Council to identify ways to make medication use safer and more effective for the patients we serve.

Food and Drug Administration (FDA) ~ Founding Member

The Food and Drug Administration (FDA) is responsible for protecting the public health by assuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, the nation's food supply, cosmetics, and products that emit radiation. The FDA also provides accurate, science-based health information to the public.

NCC MERP is composed of a unique and important group of partners who bring specialized experience and expertise to the Council. It has, in the past and continues today, to contribute significantly to reducing medication errors through a number of important public health initiatives. As a Council, NCC MERP developed a

standardized definition of medication error that FDA adopted and codified as its own definition. In addition, FDA believes the use of the NCC MERP taxonomy to be an important asset in its effort to minimize medication errors. FDA also used the taxonomy as the basis to develop MedDRA terminology that has been used to classify medication error post-marketing events in AERS and global databases. NCC MERP was the first group to convene two patient safety workshops on issues of considerable interest to FDA. The first, an invitational workshop on bar coding technology and feasibility that brought technology, health professional and government experts together from around the country to discuss how best to implement this innovative tool. This meeting discussion proved to be an important first step that contributed greatly when FDA developed the final rule on bar code label requirements for human drug and biological products. The second, a meeting that explored the relationship and risks associated with drug name suffixes provided an important forum for the pharmaceutical industry, health practitioners and government experts to consider the complex safety issues resulting from adding suffixes to marketed drug names. FDA looks forward to continuing its relationship with NCC MERP to address issues of mutual concern regarding reduction of medication errors in the future.

Generic Pharmaceutical Association (GPhA) ~ Founding Member

GPhA represents the manufacturers and distributors of finished generic pharmaceuticals, manufacturers and distributors of bulk active pharmaceutical chemicals, and suppliers of other goods and services to the generic drug industry. Generics represent 53% of the total prescriptions dispensed in the United States, but only 12% of all dollars spent on prescription drugs.

The Joint Commission ~ Founding Member

The Joint Commission evaluates and accredits more than 15,000 healthcare organizations and programs in the U.S. An independent, not-for-profit organization, the Joint Commission has maintained and applied state-of-the-art standards that focus on improving the quality and safety of care provided by health care organizations since 1951.

National Association of Boards of Pharmacy (NABP) ~ Founding Member

NABP is the independent, international, and impartial Association that assists its member boards of pharmacy and jurisdictions in developing, implementing, and enforcing uniform standards for the purpose of protecting the public health.

The National Association of Boards of Pharmacy® (NABP®) congratulates and extends warmest wishes to the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP) on the celebration of its 20th anniversary. NABP is proud to have been a founding member of NCC MERP. NCC MERP has demonstrated a true commitment in working with the leading national health care organizations to address the interdisciplinary causes of errors and to promote the safe use of medications. Patient safety is a priority that NCC MERP and NABP share. NABP commends NCC MERP for its commitment and dedication in developing recommendations and tools, such as the Taxonomy of Medication Errors, numerous statements aimed at reducing errors and increasing safety in all health care settings, and most recently the Adverse Drug Event Algorithm. NCC MERP has been a leader in dissemination of timely alerts related to medication error reports to provide an opportunity for learning and increased safety in medication use systems. NABP looks forward to continued involvement with NCC MERP on projects that aim to reduce medication errors and promote patient safety.

National Council of State Boards of Nursing (NCSBN) ~ Founding Member

The National Council of State Boards of Nursing (NCSBN) represents the state and territorial boards of nursing who regulate the practice of nursing in the United States.

NCSBN salutes NCC MERP on their 20th anniversary! The work of NCC MERP informs and influences medication practices in nursing. As a founding member of NCC MERP and a continuing contributor, NCSBN compliments NCC MERP on their

continual work to analyze and improve medication safety.

Pharmaceutical Research and Manufacturers of America (P*h*RMA) ~ Founding Member

The Pharmaceutical Research and Manufacturers of America (PhRMA) is a voluntary nonprofit organization representing the country's leading research-based pharmaceutical and biotechnology companies, which are devoted to inventing medicines that allow patients to lead longer, healthier, and more productive lives.

PhRMA extends warmest congratulations to the National Coordinating Council on Medication Error Reporting and Prevention on the occasion of the Council's 20th anniversary. We are pleased to be a founding member of the NCC MERP and are committed to patient safety. To that end, we have collaborated with NCC MERP on initiatives such as on bar coding, nomenclature and suffix use, and we continue to research how medication errors can be avoided. We look forward to a long history with NCC MERP.

American Society for Healthcare Risk Management (ASHRM) ~ Joined in 1997

Established in 1980, the American Society for Healthcare Risk Management is a personal membership group of the American Hospital Association with more than 5,300 members representing healthcare, insurance, law and other related professions. ASHRM promotes effective and innovative risk management strategies and professional leadership through education, recognition, advocacy, publications, networking and interactions with leading healthcare organizations and government agencies. ASHRM initiatives focus on developing and implementing safe and effective patient care practices, preservation of financial resources, and maintenance of safe working environments.

Institute for Safe Medication Practice (ISMP) ~ Joined in 1998

The Institute for Safe Medication Practices (ISMP) is the nation's only nonprofit organization devoted entirely to medication error prevention and safe medication use. ISMP represents more than 40 years of experience in helping healthcare practitioners keep patients safe, and continues to lead efforts to improve the medication use process. In 2014, the Institute celebrated the 20th anniversary of is official incorporation as a nonprofit organization. ISMP's efforts focus on improving the safety of medication distribution and use as well as medical product safety, such as improvements in the naming, packaging, and labeling of medications.

The Institute for Safe Medication Practices (ISMP) congratulates the National Coordinating Council for Medication Error Reporting and Prevention on its 20 year anniversary. ISMP has supported the Council's important work since its inception and has disseminated NCC MERP statements on error prevention made by the council's multidisciplinary membership. The NCC MERP statement refuting the use of medication error rates to compare organizations in particular has had a major impact on the way healthcare organizations use error reporting data. ISMP looks forward to working with the NCC MERP on other key medication safety projects that involve all major stakeholders in the healthcare industry.

Department of Veterans Affairs (VA) ~ Joined in 1999

The Department of Veterans Affairs (VA) is the largest integrated health care system in the nation with 153 medical centers and over 800 outpatient clinics. It provides a broad spectrum of medical, surgical, and rehabilitative care to a diverse population of patients who are mostly older, relatively sick, and often have multiple chronic medical and/or psychiatric conditions. In fiscal year (FY) 2014, the VA treated over 6 million patients and provided over 143 million prescriptions as part of their care.

The VA Pharmacy Benefits Management Services (PBM) and Center for Medication

Safety (VAMedSAFE) are responsible for system-wide evaluation of pharmacy care within the VA. Through these groups, the VA is able to accomplish patient safety goals that are in line with recommendations from the NCC MERP on ways to reduce medication errors using a coordinated approach and a systems-based perspective. Patient medical data, including pharmacy records, are automated uniformly throughout the system, and the VA maintains extensive databases with capabilities for electronic linkage of individual patient records on a national basis. VA utilizes a Bar Code Medication Administration (BCMA) system as a point-of-care software solution to addresses the serious issue of inpatient medication errors by electronically validating and documenting medications for inpatients. It ensures that the patient receives the correct medication in the correct dose, at the correct time, and visually alerts staff when the proper parameters are not met. In addition, VA utilizes a nationwide computer physician order entry (CPOE) system, which facilitates medication error reduction by identifying incorrect drugs and doses or critical drug interactions. In the area of drug name nomenclature, VA has improved and ensured the understanding of drug product naming in accordance with USP established drug names, as well as increased awareness towards voluntary reporting of potential medication errors resulting from look-alike/sound-alike drug names. Further, VAMedSAFE focuses on evaluating and addressing preventable adverse drug events (ADEs) within the VA system via conducting and promoting medication safety projects at the regional and national levels. As a comprehensive pharmacovigilance program, VAMedSAFE performs drug surveillance activities that include identifying and tracking adverse drug events, providing interventions to decrease preventable ADEs; and educating the field on safe and best practices to minimize ADEs. VA PBM and VAMedSAFE wish to congratulate the NCC MERP on its 20 year anniversary and look forward to more collaborative efforts on promoting patient safety as well as dissemination of important information such as the National Alert Network for Serious Medication Errors. Additionally, we wish to recognize the work of the Council in proposing new terminology to clarify the terms and relationships with regards to medication error and ADEs, while further delineating "Preventable" and "Non-Preventable" ADEs.

American Society for Consultant Pharmacists (ASCP) ~ Joined in 2000

The American Society of Consultant Pharmacists is the international professional society devoted to optimal medication management and

improved health outcomes for all older persons. ASCP's 12,000 pharmacist, student, and allied members serve individuals residing in a variety of environments, including nursing facilities, sub-acute care and assisted living facilities, psychiatric hospitals, and hospice programs, as well as in-home and community-based care.

National Patient Safety Foundation (NPSF) ~ Joined in 2000

The National Patient Safety Foundation's vision is to create a world where patients and those who care for them are free from harm. A central voice for patient safety since 1997, NPSF partners with patients and families, the health care community, and key stakeholders to advance patient safety and health care workforce safety and disseminate strategies to prevent harm. NPSF is an independent, not-for-profit 501(c)(3) organization.

Department of Defense (DoD) ~ Joined in 2002

The past few years have been transformative for DoD patient safety. During this period DoD has implemented the Patient Safety Reporting System (PSR), participated in the Partnership for Patients (PfP) initiative, completed a comprehensive review of patient safety, quality and access within the Military Health System (MHS), initiated a drive for greater internal and external transparency within the MHS and embarked on a journey to make the MHS a high reliability organization (HRO).

In 2011, the DoD implemented an electronic PSR which automated reporting of both medication and non-medication safety events at a granular level that allows for increased trending and analysis. DoD has aligned PSR as closely as possible with the Agency for Healthcare Research in Quality (AHRQ) Common Formats and is currently working with the VA on a Joint PSR use project. Also in 2011, the White House and the Department of Health and Human Services introduced the PfP safety initiative, aimed at reducing select hospital acquired conditions (HACs) by 40 percent and readmissions

by 20 percent by the end of calendar year 2013. Through its participation in the PfP initiative, the MHS introduced a collaborative, transformative approach to patient safety. As the first major cross-service improvement and learning-based initiative, the MHS selected a series of standardized evidence base practices (EBPs) in its 55 inpatient MTFs. PfP built an integral foundation for future comprehensive patient safety initiatives and organizational changes across the MHS. The MHS has achieved 17.3% cumulative improvement of hospital acquired conditions (HACs) and a 15.1% reduction of readmissions between the CY2010 baseline and CY2014 Q2.

In 2014, the Secretary of Defense directed a 90-day comprehensive review of access to care, quality of care, and patient safety within the MHS which resulted in a final report that summarized key findings and proposed a series of recommendations to address organizational improvements. From these recommendations, action plans were developed and DHA is working collaboratively with the Services to standardize multiple performance improvement processes in areas of infection prevention and control, Sentinel Event (SE) identification and reporting, Root Cause Analyses (RCA), education and training and universal harm reporting capabilities. As part of this, DoD leadership committed to increased transparency both internally and externally. The MHS developed a transparency framework based on National Patient Safety Foundation's work: (1) Between the patient and the clinician; (2) Among clinicians; (3) Public reporting; and (4) Participation in national and regional collaboratives. In January 2015 MHS senior leaders reiterated the shared commitment to ensuring that performance information is both available and useful to all beneficiaries and acknowledged that transparency is a key characteristic of HROs and the efforts to engage patients in discussions about access, safety and quality will serve the MHS well in the years ahead. In 2014, the MHS established a task force to leverage HRO concepts and guide the development of enduring principles and establish the framework to advance the quality of care and patient safety, strategically implementing and embedding these concepts across the system. Our focus is; leadership support, culture of safety, continuous process improvement, patient-centered culture, teamwork and a common knowledge base.

National Council on Patient Information and Education (NCPIE) ~ Joined in 2002

Organized in 1982, the National Council on Patient Information and Education (NCPIE) is a nonprofit coalition of diverse organizations committed to promoting the wise use of medicines through trusted communication for better health. NCPIE works to address shared critical medicine safe use issues like adherence improvement, prescription drug abuse prevention, reduction of medication errors, and quality improvements in healthcare provider-patient communication.

Recognizing the value of multidisciplinary collaboration, NCPIE is pleased to be a Member of the National Coordinating Council on Medication Error Reporting and Prevention (NCC MERP) since 2002. A significant contribution by NCC MERP to advancing medication safety is its role as initiator and convener. By bringing together organizations with diverse constituencies (and perspectives) and sustaining a dynamic program of action, NCC MERP better ensures broad adoption and implementation of unique Council Recommendations and programs. On behalf of the NCPIE Board of Directors, NCPIE congratulates the Council on its 20th anniversary and looks forward to continuing its involvement in the Council's activities intended to improve patient care by improving systems that help reduce the number of medication errors.

Institute for Healthcare Improvement (IHI) ~ Joined in 2006

IHI is a leading innovator in health and health care improvement worldwide. For more than 25 years, we have partnered with visionaries, leaders, and front-line practitioners around the globe to spark bold, inventive ways to improve the health of individuals and populations. Recognized as an innovator, convener, trustworthy partner, and driver of results, we are the first place to turn for expertise, help, and encouragement for anyone, anywhere who wants to change health and health care profoundly for the better. To advance our mission, IHI's work is focused in five key areas: Improvement Capability; Person- and Family-Centered Care; Patient Safety; Quality, Cost, and Value; and Triple Aim for Populations.

The NCCMERP Council, a group of multi-stakeholders interested continuing to advance the field, has been a leader in the field of medication safety for the past 20 years. It is important to note that participation in the council is supported by the individual organizations that the members represent. The sustained involvement and success of the Council is a tribute to the importance of its work. The activities of the Council complements the activities of IHI in their mutual efforts to make health care safer for all. On behalf of patients and IHI, thank you and congratulations to the Council and its members for their continuing work and best wishes for many more years of success.

National Alliance of State Pharmacy Associations (NASPA) ~ Joined in 2006

The National Alliance of State Pharmacy Associations (NASPA), founded in 1927 as the National Council of State Pharmacy Association Executives, is dedicated to enhancing the success of state pharmacy associations in their efforts to advance the profession of pharmacy. NASPA's membership is comprised of state pharmacy associations and over 70 other stakeholder organizations. NASPA promotes leadership, sharing, learning, and policy exchange among its members and pharmacy leaders nationwide. The Alliance of Patient Medication Safety (APMS), a federally listed Patient Safety Organization since 2008, is a 501 (c) (3) supporting organization of NASPA. The mission of APMS is to encourage a culture of safety by providing recommendations on best practices and workflow processes designed to reduce medication errors, improve medication use and minimize patient risk.

American Geriatrics Society (AGS) ~ Joined in 2009

The American Geriatrics Society is a not-for-profit organization of over 6,000 healthcare professionals devoted to improving the health, independence and quality of life of all older people. The Society provides leadership to healthcare professionals, policy makers and the public by

implementing and advocating for programs in patient care, research, professional and public education, and public policy. AGS's vision for the future is that every older American will receive high quality patient-centered care.

AGS congratulates NCC MERP on the celebration of its 20th Anniversary. Medication errors are of great concern to AGS, as older people with multiple chronic medical conditions are prone to polypharmacy, dosing errors, and drug-drug interactions. We look forward to benefitting from the collective expertise of NCC MERP's members and contributing to the enhancement of patient safety.

Anesthesia Patient Safety Foundation (APSF) ~ Joined in 2009

The Anesthesia Patient Safety Foundation (APSF) was formed in 1985 as the first independent multi-disciplinary non-profit organization which was created expressly to help avoid preventable adverse clinical outcomes in anesthesia, especially those related to human error. The APSF's Mission is, and has been, to continually improve the safety of patients during anesthesia care by encouraging and conducting:

- *safety research and education*
- *patient safety programs and campaigns*
- *national and international exchange of information and ideas*

APSF has long recognized the threat medication errors pose in the operating room, and is honored to be a member of the National Coordinating Council on Medication Error Reporting and Prevention (NCC-MERP), which is recognized as one of the most influential organizations in the field of medication errors because of its wide reach across the health care community.

APSF would like to congratulate NCC-MERP on its 20 years of service and dedication to patient safety. Through its definition and taxonomy of medication errors, NCC-MERP has provided the basis for a coordinated effort to improve the safety of health care around the world. Partly due to the influence of NCC-MERP's work, APSF and has

made the prevention of medication errors one of its top priorities, sponsoring investigator-initiated grants and convening at least three large workshops and meetings on the subject.

Medication Safety Officers Society (MSOS) ~ Joined in 2013

The mission of the Medication Safety Officers Society (MSOS) is to advance and encourage excellence in medication-use safety by facilitating communication, leadership, direction, and education among its members. This is accomplished by providing an open forum of information sharing and collaboration. MSOS was founded in 2005 and was originally named the American Society of Medication Safety Officers (ASMSO). Its multidisciplinary membership, now over 1,100, forms a resource to support anyone on the healthcare team (e.g., Medication Safety Officers, Medication Safety Coordinators) whose primary responsibility focuses on medication-use safety. MSOS became incorporated under the Institute for Safe Medication Practices (ISMP) in 2013 and its name reflects its expanded reach to medication safety officers and others interested in medication safety on a national and international scale. Membership in MSOS is currently free to all individuals who work in healthcare or a healthcare-related field who have an interest in improving medication-use safety.

We are pleased to have the opportunity to work with the many member organizations that make up NCC MERP and look forward to our continued provision of ideas and perspectives to the Council as Medication Safety Officers.

The Future of the Council

In spite of the difficulties inherent in bringing (and keeping) together a diverse set of professionals, with often competing foci, the members and leadership (see Table 4) of the National Coordinating Council for Medication Error Reporting and Prevention have continued to advance the goals it set for itself over 20 years ago.

In 2015, the Council celebrated twenty years of coordinating medication safety efforts in anticipation of an active and productive upcoming quinquennium. During the 2015 ~ 2020 interval, NCC MERP will continue to:

- Promote reporting, discussion and communication about safe medication use, medication errors and error-prone processes, and error-prevention strategies
- Develop and broadly disseminate NCC MERP's recommendations and other work products related to reporting, understanding, and prevention of medication errors
- Collaborate with other interested stakeholders to address special topics related to medication errors and patient safety initiatives.

Accomplishing its stated objectives ensures realization of the vision of the National Coordinating Council for Medication Error Reporting and Prevention so that:

No patient will be harmed by a medication error.

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Table 1 ~ NCC MERP GOALS

- Stimulate the development and use of reporting and evaluation systems by individual health care organizations;
- Stimulate reporting to a national system for review, analysis, and development of recommendations to reduce and ultimately prevent medication errors;
- Examine and evaluate the causes of medication errors;
- Increase awareness of medication errors and methods of prevention throughout the health care system; and
- Recommend strategies for system modifications, practice standards and guidelines, and changes in packaging and labeling.

Table 2 ~ NCC MERP RECOMMENDATIONS/STATEMENTS

Recommendation	Adopted	Revised
Reducing Medication Errors Associated with At-risk Behaviors by Healthcare Professionals	Oct 22, 2013	Aug 30, 2014
Recommendations for Avoiding Medication Errors With Drug Samples	Feb 5, 2008	
Promoting the Safe Use of Suffixes in Prescription Drug Names	Dec 3, 2007	
Recommendations to Reduce Medication Errors in Non-Health Care Settings	Jun 20, 2003	Feb 27, 2007
Recommendations for Bar Code Labels on Pharmaceutical (Drug) Products to Reduce Medication Errors	Jun 27, 2001	Jun 5, 2007
Recommendations to Reduce Medication Errors Associated with Verbal Medication Orders and Prescriptions	Feb 20, 2001	May 1, 2015
Recommendations to Enhance Accuracy of Dispensing Medications	Sep 19, 1999	Jun 1, 2015
Recommendations to Enhance Accuracy of Administration of Medications	Jun 29, 1999	May 1, 2015

Recommendations to Enhance Accuracy of Prescription/Medication Order Writing	Sep 4, 1996	Oct 22, 2014
Recommendations for Healthcare Professionals to Reduce Medication Errors Associated with the Label, Labeling, and Packaging of Pharmaceutical (Drug) Products and Related Devices	May 30, 1998	Oct 22, 2014
Recommendations for Healthcare Organizations to Reduce Medication Errors Associated with the Label, Labeling, and Packaging of Pharmaceutical (Drug) Products and Related Devices	Mar 30, 1998	Oct 22, 2014
Recommendations for Manufacturers to Prevent Medication Errors Associated with the Label, Labeling and Packaging of Pharmaceutical (Drug) Products and Related Devices	May 12, 1997	Jun 7, 2007
Recommendations for Regulators and Standards Setters to Prevent Medication Errors Associated with the Label, Labeling, and Packaging of Pharmaceutical (Drug) Products and Related Devices	May 12, 1997	Feb 27, 2007
Statement	**Adopted**	**Revised**
Statement Advocating for the Elimination of Prescription Time Guarantees in Community Pharmacy	Oct 31, 2013	
Statement Opposing the Criminalization of Errors in Healthcare	May 1, 2011	Jan 19, 2012
Statement on Medication Error Rates	Jun 11, 2002	Jun 24, 2008

Table 3 ~ NCC MERP MEMBERSHIP*

Member Organizations

- AARP
  Leigh Purvis, MSPH
  - Senior Strategic Policy Advisor
- American Geriatrics Society
  James Burris, MD, AGSF
  - Chief Consultant, Geriatrics and Extended Care
- American Medical Association
  Barry Dickinson, PhD
  - Director, Science and Biotechnology
- American Nurses Association
  Harpreet Gujral, MSN, RN, FNP-BC
  - Director of Nursing Practice and Work Environment
- American Pharmacists Association
  Marsha Gilbreath, PharmD
  Senior Manager, Governance
- American Society for Healthcare Risk Management
  Ann Gaffey, RN, MSN
  - Healthcare Risk and Safety Strategies
- American Society of Consultant Pharmacists
  Joan Enstam Baird, PharmD, CGP
  - Director of Clinical Affairs
- American Society of Health-System Pharmacists
  Bona Benjamin, BS Pharm
  - Director, Medication-Use Quality Improvement
- Department of Defense
  Deborah Myers, RPh, MBA
  - Deputy Director, Patient Safety Analysis Center
- Department of Veterans Affairs
  Rita L. Brueckner, PharmD, MS, MBA
  - National Quality Management Officer
  - National Patient Safety Officer
- Food and Drug Administration
  Kellie Taylor, PharmD, MPH
  - Deputy Director, Office of Medication Error Prevention and Risk Management
- Generic Pharmaceutical Association

David Gaugh, RPh
- Vice President of Regulatory Sciences

- Institute for Healthcare Improvement
  Frank Federico, RPh
  - Executive Director
- Institute for Safe Medication Practices
  Michael Gaunt, PharmD
  - Medication Safety Analyst
- The Joint Commission
  Ron Wyatt, MD
  - Medical Director, Division of Healthcare Improvement
- Medication Safety Officers Society
  E. Robert Feroli Jr., PharmD, FASHP, FSMSO
- National Alliance of State Pharmacy Associations
  Tara Modisett
  - Executive Director, Alliance for Patient Medication Safety
- National Association of Boards of Pharmacy
  Elizabeth (Scotti) Russell, RPh
  - Government Affairs Manager
- National Council of State Boards of Nursing
  Maureen Cahill, MSN, RN, APN-CNS
  - Associate, Outreach Services, The Campaign for Consensus
- National Council on Patient Information & Education
  Deborah Davidson
  - Membership Director
- National Patient Safety Foundation
  Patricia McGaffigan, RN, MS
  - Vice President, Program Strategy & Management
- Pharmaceutical Research and Manufacturers of America
  - TBD
- Society of Hospital Medicine
  Jenna Goldstein
  Senior Manager, Center for Hospital Innovation and Improvement
- United States Pharmacopeia
  Shawn C. Becker, MS, BSN
  Senior Director, Healthcare Quality Standard

Federal Liaison

- Agency for Healthcare Research and Quality
  Diane D. Cousins, RPh
- Center for Quality Improvement and Patient Safety, Patient Safety Organizations Program

Patient Representative

- Chrissie Blackburn

Individual Members

- Rita Munley Gallagher, PhD, RN
  - Nursing and Healthcare Consultant
- TGC
- Deborah Morris Nadzam, PhD, FAAN
  Director
  - Healthy Cities

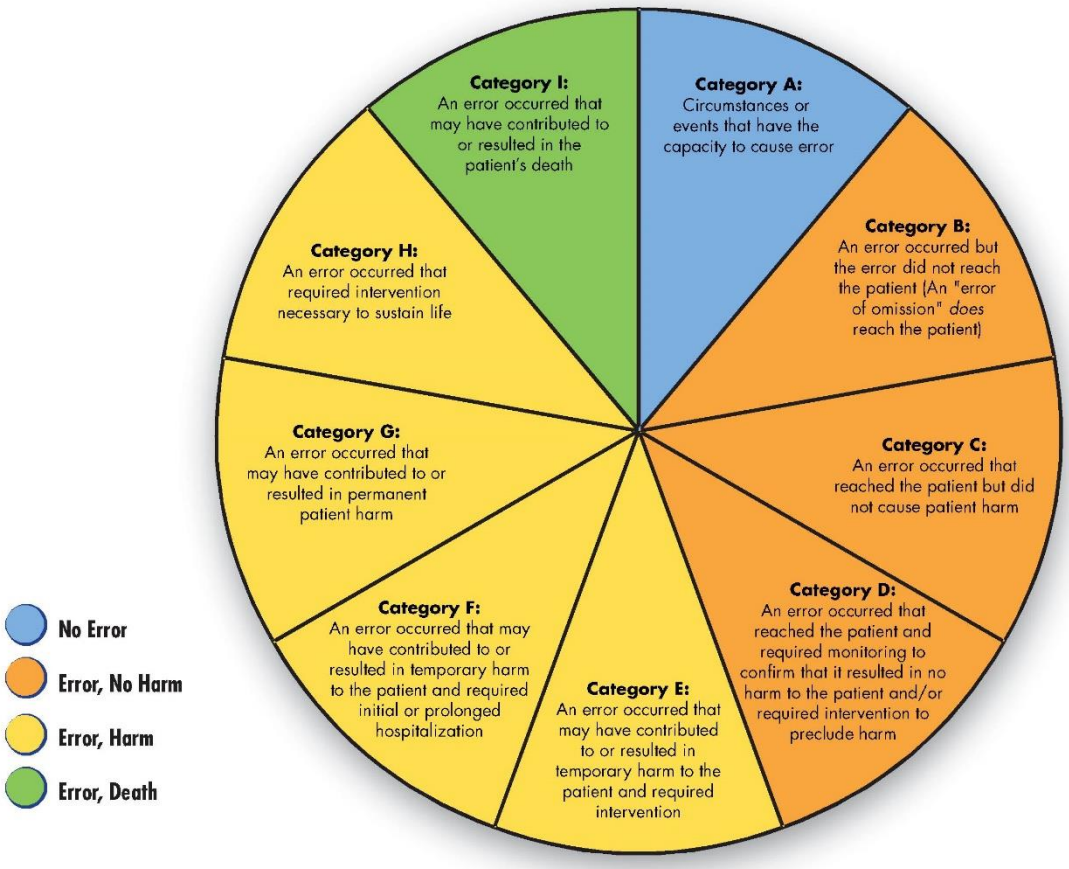
***As of November 1, 2015**

Table 4 ~ NCC MERP LEADERSHIP

- 1995 ~ 1998
  - William M. Ellis, RPh, Chair
- 1998 ~ 2000
  - Deborah Nadzam, PhD, FAAN, Chair
- 2001 ~ 2002
  - Jerry Phillips, RPh, Chair
  - John Santell, MS, Vice Chair
  - John Combes, MD, Vice Chair
- 2003 ~ 2004
  - John Combes, MD, Chair
  - Linda Hanold, MBA, Vice Chair
- 2005 ~ 2006
  - Linda Hanold, MBA, Chair
  - Joseph W. Cranston Jr., PhD, Vice Chair
- 2007 ~ 2009
  - Deborah Nadzam, PhD, FAAN, Chair
  - Carla McSpadden, BS Pharm, Vice Chair
  - Rita Munley Gallagher, PhD, RN, Vice Chair
- 2009 ~ 2011
  - Bona Benjamin, BS Pharm, Chair
  - Rita Munley Gallagher, PhD, RN, Vice Chair
- 2011 ~ 2012
  - Manisha Shah, MBA, Chair
  - Frank Federico, RPh, Vice Chair
- 2012 ~ 2015
  - Frank Federico, RPh, Chair
  - Ann Gaffney, RN, MSN, CPHRM, DFASHRM, Vice Chair

Figure 1

NCC MERP Index for Categorizing Medication Errors



Definitions

Harm
Impairment of the physical, emotional, or psychological function or structure of the body and/or pain resulting therefrom.

Monitoring
To observe or record relevant physiological or psychological signs.

Intervention
May include change in therapy or active medical/surgical treatment.

Intervention Necessary to Sustain Life
Includes cardiovascular and respiratory support (e.g., CPR, defibrillation, intubation, etc.)

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Figure 2

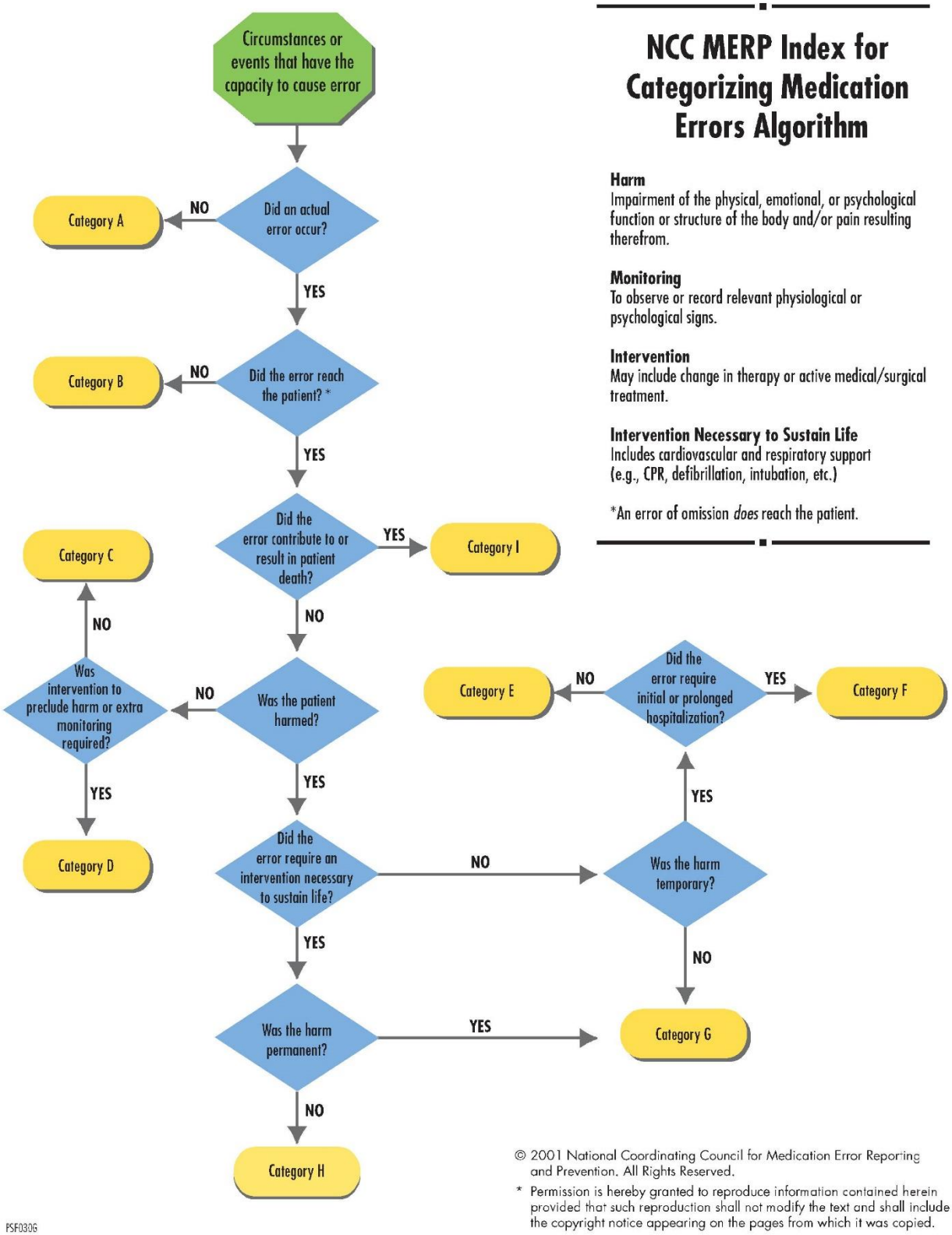

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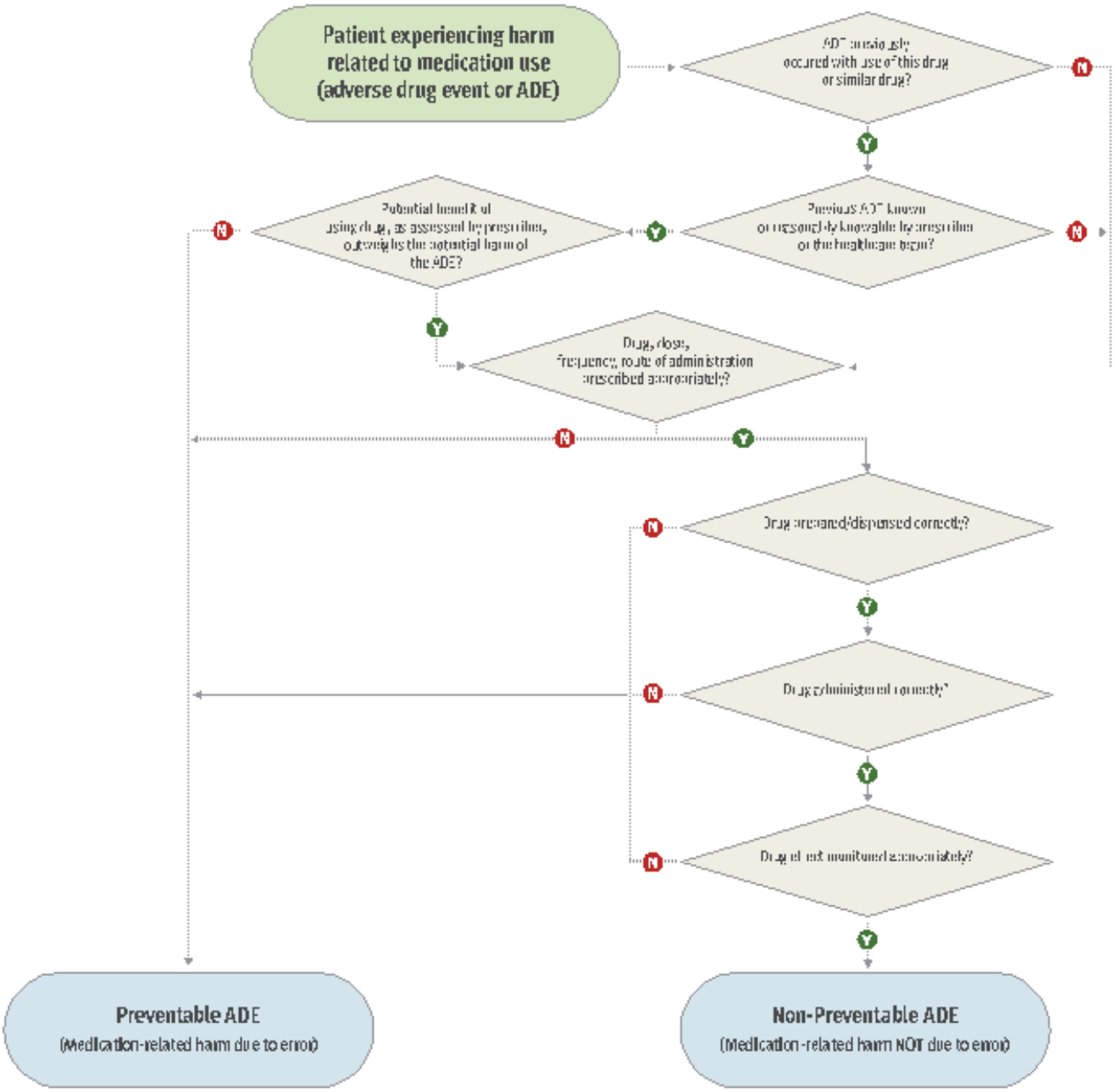
Figure 3

NCC MERP Adverse Drug Events Algorithm